

### **REMARKS**

Claims 1, 3-7, 10-13, 16-18, 20-25, and 30-33 are currently pending in the application. By this amendment, claims 30-33 are added for the Examiner's consideration. The above amendments do not add new matter to the application and are fully supported by the original disclosure. For example, support for the amendments is provided in the claims as originally filed and at page 12 of the specification. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

#### ***Re-opening of Prosecution***

Applicants appreciate the Examiner's reconsideration and withdrawal of the previous final rejection. The amendments and remarks herein are directed to the new grounds of rejection set forth in the outstanding Office Action dated December 7, 2007.

#### ***35 U.S.C. §103 Rejections***

Claims 1, 3-7, 10-13, 16-18, and 20-25 are rejected under 35 U.S.C. §103(a) for being unpatentable over U.S. Pat. No. 5,752,025 issued to Shakib *et al.* ("Shakib") in view of U.S. Pat. Pub. No. 2002/0120617 issued to Yoshiyama *et al.*, U.S. Pat. Pub.No. 2001/00156428 issued to Gajda *et al.* ("Gajda"), and U.S. Pat. Pub. No. 2003/0088739 issued to Wilkes *et al.* ("Wilkes").<sup>1</sup> This rejection is respectfully traversed.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. See, MPEP §2142. To establish a

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<sup>1</sup> The Examiner identifies Yoshiyama as "US 200210120617" and Gajda as "US 2001100156428." It is noted that these document numbers are inaccurate. It appears that the forward slash (i.e., "/") in each document number has been replaced with the numeral one (i.e., "1") in the Office Action.

*prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.<sup>2</sup> Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Applicants submit that no proper combination of the applied references discloses or teaches the features of the claimed invention.

As previously discussed, the present invention generally relates to optimization of database performance, and more particularly, optimization of performance in non-relational databases. Each of independent claims 1, 7, 18, and 25 recites, *inter alia*: (i) marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns, (ii) the second set of columns is visible as collapsed data, and (iii) the database is a non-relational database. More specifically, representative independent claim 1 recites:

1. A method for optimizing performance of a database, the method comprising:
  - sorting and categorizing a first set of columns within a view of the database;
  - marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and

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<sup>2</sup> While the *KSR* court rejected a rigid application of the teaching, suggestion, or motivation ("TSM") test in an obviousness inquiry, the [Supreme] Court acknowledged the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination. *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-1357 (Fed. Cir. 2007) (quoting *KSR International Co. v. Teleflex Inc.*, --- U.S. ----, 127 S.Ct. 1727, 1731 (2007)).

categorizing of the second set of columns, the second set of columns including all columns exclusive of the first set of columns; and  
    sorting and categorizing at least one column of the second set of columns in response to performing a query on the at least one column,  
    wherein the database is a non-relational database,  
    the sorting and categorizing a first set of columns step includes assigning the first set of columns to a portion of a cache,  
    the sorting and categorizing at least one column of the second set step includes sorting and categorizing the at least one column of the second set of columns in another portion of the cache, and  
    the second set of columns is visible as collapsed data.

Applicants submit that, for the reasons discussed herein, no proper combination of the applied references teaches the combination of features recited in the claimed invention.

- (i) None of the applied references teach or suggest: marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns.

Each of independent claims 1, 7, 18, and 25 recites marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns. More specifically, claim 1 recites *marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*; claim 7 recites *marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*; claim 18 recites *a component to mark a second set of columns within the view, wherein the second set of columns comprises all columns within the view that are not in the first set of columns, and wherein the mark indicates that sorting and categorizing has been performed on the second set of columns without actually having performed the sorting and the categorizing*; and, claim 25 recites *a second computer program code to mark a second set of*

*columns within the view, wherein the second set of columns comprises all columns within the view that are not in the first set of columns, and wherein the mark indicates that sorting and categorizing has been performed on the second set of columns without actually having performed the sorting and the categorizing.* These features are not shown or suggested by the applied references.

The Examiner asserts that Shakib discloses sorting and categorizing a first set of columns within a view of a database at FIG. 5 and line 65 of col. 3 through line 3 of col. 4 (Office Action, page 2). The Examiner acknowledges that Shakib does not disclose or suggest *marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns, the second set of columns including all columns exclusive of the first set of columns.*

Applicants agree that Shakib does not teach this feature. The Examiner contends that Yoshiyama teaches these features at lines 6-15 of paragraph [0035]. The Examiner concludes that it would have been obvious to modify Shakib by adding these features to “speed up data retrieval as described by Yoshiyama (parg. 10)” (Office Action, page 3). Applicants respectfully disagree and submit that no proper combination of the applied references discloses or suggests this feature of the claimed invention.

Shakib discloses a method and system for creating and displaying a table of categorized data. The table, called a categorization table, is analogous to the well-known computer directory tree structure with expandable and collapsible headings (FIG. 3). More specifically, a plurality of data records 10 are accessed through a sorted index 12. A header table 14 references the plurality of data records 10 through the sorted index 12 (FIG. 1). The sorted index 12 contains a separate entry corresponding to each data record contained in the plurality

of data records 10. The header table is traversed to create and display a categorization table on a display means (FIG. 3). Shakib does not, however, teach or suggest marking a second set of columns within a view of a database as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns. The Examiner correctly acknowledges as much.

Yoshiyama does not cure the above-noted deficiencies of Shakib. Yoshiyama discloses a database retrieval method that is based upon a comparison of costs of different retrieval techniques. The method is useful for irregular retrievals where an already generated index cannot be used in many cases. In the method, a structured query language (SQL) statement (i.e., query) is parsed (see paragraphs [0046] and [0058]; and FIG. 5). Based upon the parsing, a cost calculation is performed to determine the fastest way to access the database (see para. [0059]). The costs of three retrieval techniques are calculated: (i) access made by entire scanning on all of the data in the database; (ii) access made by using an already existing index or dynamic index; and (iii) access made by creating and using a dynamic index (see para. [0063]). The technique that is deemed the fastest is used to actually access the database and retrieve the data in response to the query (see para. [0063] – [0066]). Yoshiyama specifically states at paragraph [0035]:

[0035] With this program, a step of making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed is first executed in a block 1 of FIG. 1. Next, in a block 2, a step of determining whether or not an index that satisfies a retrieval condition and is applicable exists among already generated indexes is executed, if the cost required when the entire retrieval is performed is higher as a result of the cost comparison made in the block 1. In a block 3, a step of generating an index corresponding to the retrieval condition is executed if an applicable index is determined not to exist in the block 2. In a block 4, a step of retrieving a database by using the index generated in the block 3 is executed. These steps are executed by a computer.

Applicants acknowledge that the above-noted passage discusses retrieving a database and generating an index. However, there is no mention of *marking a second set of columns within a view of a database as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*, as recited in the claimed invention. Indeed, the terms “marking” and “view” (or any equivalents thereof) are nowhere to be found in the noted passage.

In contrast to Yoshiyama, exemplary embodiments of the invention operate to *mark a second set of columns within a view of a database as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*. More specifically, in exemplary implementations, at least one view of the database is created by defining columns. The view index size is kept at a level that optimizes database performance by categorizing and sorting only a first subset of the columns contained within the corresponding view. The remaining columns of the view constitute a second subset and are marked as having been indexed, but are not actually used to build the index. The second subset of columns may be visible as collapsed data to a client for issuing a query, since all columns are marked as indexed. When a query is performed on at least one column of the second subset, a sort and categorization of the at least one column is performed. This results in some data being indexed at run time. However, since the second subset of columns are not initially indexed, the total number of indexed records is substantially less, the view index size is reduced, and overall performance is increased. This is described at paragraphs [0018]-[0019] of Applicants' specification:

[0018] The server 10 analyses the columns in a view that are used to create the index and divides the columns into two categories, one category for indicating those columns used to create the index, and the second includes columns that are

marked as used to create the index, but are not actually used to build the index. The second set of columns may be sorted and categorized when a query is made or a subset of the data in the column(s) may be sorted, categorized and indexed separately in a view. These views are known as mini-views. These views are known as mini-views and are typically (but certainly not exclusively) used only by the server and is transparent to clients or users. [emphasis added].

[0019] Table 2 shows a view including these two types of categories, which may be created by the server (or equivalent) and includes a mini-index map (col. 2). Columns 3, 4 and 5 are indexed (i.e., BOM Id, Assembly, and Part No., respectively), however, column 8 is not indexed (i.e., Price), but is marked as indexed. A client, however, would be able to observe that all these categories are available, including Price (col. 8), since it is marked as indexed. Since column 8 is not actually indexed, the total number of indexed database records in column 1 (i.e., 24,051) is substantially less as compared to Table 1, column 1 (i.e., 710,300), according to this example. This is a substantial reduction in index size, and provides one example of the implementation of the invention. It should be recognized that other examples are equally possible, and that the view of Table 2 is provided as one illustration for purposes of discussion. [emphasis added].

Yoshiyama, on the other hand, is completely silent with regard to marking a set of columns as sorted and categorized prior to the set actually being sorted and categorized. Instead, in Yoshiyama, non-indexed data is accessed in one of three ways: by a full scan, by using portions of existing indexes, or by creating a new dynamic index. However, the non-indexed data is not marked as indexed before it is indexed. Put another way, the non-indexed data is not marked as categorized and sorted before it is actually categorized and sorted. Therefore, Yoshiyama does not disclose or teach *marking a second set of columns within a view of a database as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*, as recited in the claimed invention.

The Examiner, in explaining the rejection, states that Yoshiyama teaches determining whether an index satisfies retrieval conditions and, if an index does not exist which satisfies the retrieval conditions, generating a new index. The Examiner alleges “[a]ny column which was

not indexed is defacto marked as being indexed” (Office Action, page 3) and “[t]hose columns not indexed is similar to marking a second set of columns” (Office Action, page 10).

Applicants respectfully disagree.

All words in a claim must be considered in judging the patentability of that claim against the prior art. *See, In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); see also, MPEP §2143.03. The explanation of what Yoshiyama teaches fails to address all of the words of the claimed invention. The claims do not recite “marked as being indexed” or “marking a second set of columns” as allegedly taught by Yoshiyama. Instead, the claims recite *marking a second set of columns within a view of a database as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*. The rejection conspicuously fails to address two portions of the clause that modify the recited marking, i.e., (i) *as if the second set of columns were already sorted and categorized* and (ii) *prior to actual sorting and categorizing of the second set of columns*.

Moreover, based upon the Examiner’s use of the phrase “*de facto*,”<sup>3</sup> it appears that the Examiner is alleging that the claimed features are inherent in Yoshiyama. Applicants respectfully disagree, and submit that *marking a second set of columns within a view of a database as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns* does not necessarily flow from the teachings of Yoshiyama. MPEP §2112 provides the following guidance regarding rejections based upon inherency:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666

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<sup>3</sup> <http://dictionary.reference.com/browse/de%20facto> defines “de facto” as: 1. in fact; in reality.



F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

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"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

Applicants respectfully submit that it does not necessarily flow from the teachings of Yoshiyama that any column which was not indexed is inherently *marked as if it were already sorted and categorized prior to actually being sorted and categorized*. Nor has the Examiner provided any basis in technical reasoning or fact to support such an allegation. Therefore, to the extent that the rejection is based upon an implied teaching of Yoshiyama, Applicants traverse this conclusion of inherency and request that the Examiner provide a basis in fact and/or technical reasoning to support such an allegation.

Applicants emphasize that Yoshiyama provides no teaching of *marking a second set of columns within a view of a database as if the second set were already sorted and categorized prior to actually sorting and categorizing the second set of columns*, and the Examiner has not demonstrated otherwise. Therefore, the applied references do not disclose or suggest all of the features of the claimed invention, and do not render the invention obvious.

(ii) *The Examiner has failed to identify a credible reason for combining the teachings of Shakib and Yoshiyama.*

The Supreme Court has acknowledged the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination. *See, Takeda*

*Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-1357 (Fed. Cir. 2007) (quoting *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_\_, 127 S.Ct. 1727, 1731 (2007)). In this case, the Examiner has provided no credible reason as to why the skilled artisan would be motivated to modify Shakib in view of Yoshiyama. Instead, the Examiner merely ‘cut and pasted’ a described benefit from paragraph [0010] of Yoshiyama’s disclosure (i.e., to speed up data retrieval). However, there is no articulated reasoning of how this benefit would, or even could, accrue to Shakib by way of the Examiner’s suggested modification.

This type of rejection is clearly improper since the Supreme Court has held that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_ (2007), quoting *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006). Therefore, the rejection is improper and should be withdrawn.

(iii) The Examiner’s purported reason for combining the features of the references is not applicable to Shakib, and would not have prompted the skilled artisan to make such a combination.

Even assuming *arguendo* that Yoshiyama does disclose *marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*, which Applicants dispute, there is no applicable reason for modifying Shakib with such features. Shakib is directed to a method of displaying all of the data contained in a plurality of data records. The data is displayed in a categorization table that may have expanded or collapsed headings. All of the data in the data records or sort index is necessarily categorized and sorted before it can be displayed (col. 6, lines 33-35). Since Shakib is concerned with displaying all of the data, there

would be no motivation to leave some of the data un-categorized and un-sorted. Therefore, there would be no motivation to mark a subset of columns categorized and sorted before they are actually categorized and sorted.

*(iv) There is no reasonable expectation of success for modifying Shakib in view of Yoshiyama as suggested by the Examiner*

Furthermore, and contrary to the Examiner's assertion, there is no reasonable expectation of success that modifying Shakib with such features would "speed up data retrieval" in Shakib. In fact, Shakib is not directed toward data retrieval in the same sense as Yoshiyama. Instead, Shakib is directed toward the creation and display of a categorization table that may have expanded or collapsed headings (see FIG. 3). Yoshiyama, on the other hand, is directed toward a database management system (DBMS) and the selective retrieval of data from a database based upon SQL statements (i.e., queries). Shakib makes no mention whatsoever of a DBMS or queries. Therefore, the motivation proffered by the Examiner is inapposite to Shakib, and there is no reasonable expectation of success of the proposed modification of Shakib.

*(v) The proposed modification of Shakib and in view of Yoshiyama and Gajda is improper and has no reasonable expectation of success.*

All of the independent claims 1, 7, 18, and 25 recite that the database is a non-relational database. The Examiner acknowledges that Shakib and Yoshiyama do not teach or suggest the use of a non-relational database. The Examiner, however, asserts that Gajda teaches a non-relational database, and that it would have been obvious "to modify Shakib and Yoshiyama with a non-relational database for storage and management of information for businesses" (Office Action, page 4). Applicants respectfully disagree.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Applicants acknowledge that Gajda discloses a system that improves access to a non-relational database. However, Yoshiyama explicitly relates to a relational database (see para. 0002). The Examiner initially proposes modifying Shakib to include features of Yoshiyama's relational database management system. With regard to Gajda, however, the Examiner proposes modifying Shakib to be a non-relational database. Those skilled in the art would not be prompted to modify the relational database teachings of Yoshiyama by converting them to a non-relational database, as proposed by the Examiner. In fact, Applicants submit that it would be impossible to combine the non-relational database teachings of Gajda with the relational database features of Yoshiyama, as proposed by the Examiner. Those having ordinary skill in the art will recognize that such a modification simply will not work.<sup>4</sup> Accordingly, Applicants

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<sup>4</sup> From <http://www.interviewcorner.com/Answer/Answers.aspx?QuestionId=1086&MajorCategoryId=3&MinorCategoryId=21>: What is the difference between non-relational database system and relational database system?

Non-relational databases place information in field categories that we create so that information is available for sorting and disseminating the way we need it. The data in a non-relational database, however, is limited to that program and cannot be extracted and applied to a number of other software programs, or other

submit that the proposed modification has no reasonable expectation of success, and would render the prior art invention being modified unsatisfactory for its intended purpose and/or change the principle of operation of the prior art invention being modified. Thus, the rejection based upon Shakib, Yoshiyama, and Gajda is improper and should be withdrawn.

Moreover, as with the modification of Shakib in view of Yoshiyama discussed *supra*, Applicants submit that the Examiner has failed to provide a credible reason as to why the skilled artisan would be motivated to modify Shakib in view of Yoshiyama and Gajda. Instead, the Examiner merely ‘cut and pasted’ a statement from paragraph [0002] of Gajda’s disclosure (i.e., “databases are an important tool for the storage and management of information and businesses”). However, there is no articulated reasoning of how this benefit would, or even could, accrue to Shakib by way of the Examiner’s suggested modification.

*(vi) No proper combination of the applied references teaches storing a first set of columns in a portion of a cache and a second set of columns in another portion of the cache.*

The Examiner acknowledges that Shakib, Yoshiyama, and Gajda fail to disclose or teach *the sorting and categorizing a first set of columns step includes assigning the first set of columns to a portion of a cache, and the sorting and categorizing at least one column of the second set step includes sorting and categorizing the at least one column of the second set of columns in another portion of the cache*, as recited in the claimed invention. The Examiner asserts that Wilkes teaches this at paragraphs [0062] and [0064], and concludes that it would have been obvious to further modify Shakib “to improve the rate at which the insertion point in the cache metadata structure may be found” (Office Action, page 4). Applicants disagree.

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database files within a school or administrative system. The data can only be “copied and pasted.”  
Example: a spread sheet.

In relational databases, fields can be used in a number of ways (and can be of variable length), provided that they are linked in tables. It is developed based on a database model that provides for logical connections among files (known as tables) by including identifying data from one table in another table.

Applicants acknowledge that Wilkes discloses a storage system cache that is divided into a number of segments. However, Wilkes makes no mention of a database or database operations. As such, Wilkes cannot reasonably be said to teach assigning a first set of columns of an index of a non-relational database to a portion of a cache, and assigning a second set of columns of the index of the non-relational database to another portion of the cache. Therefore, none of the applied references teaches or suggests *the sorting and categorizing a first set of columns step includes assigning the first set of columns to a portion of a cache, and the sorting and categorizing at least one column of the second set step includes sorting and categorizing the at least one column of the second set of columns in another portion of the cache*, as recited in the claimed invention.

It is well established that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness (see, e.g., MPEP §2142). To establish a *prima facie* case of obviousness, all claim limitations must be taught or suggested by the prior art. See, *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974); see also, *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As discussed above, none of the applied references discloses or teaches *marking a second set of columns within the view as if the second set of columns were already sorted and categorized prior to actual sorting and categorizing of the second set of columns*, as recited in the claimed invention. Moreover, none of the applied art documents discloses or teaches *the sorting and categorizing a first set of columns step includes assigning the first set of columns to a portion of a cache, and the sorting and categorizing at least one column of the second set step includes sorting and categorizing the at least one column of the second set of columns in*

*another portion of the cache*, as additionally recited in the claimed invention. Therefore, the rejection is improper and should be withdrawn.

(vii) *The rejection is based upon impermissible hindsight.*

Rejections based on §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Office may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. *See, In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). The Court of Appeals for the Federal Circuit has repeatedly cautioned against employing hindsight by using a patent applicant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. *See, e.g., Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988). It is established law that one "cannot use hindsight reconstruction to pick and chose among isolated disclosures in the prior art to deprecate the claimed invention." *Ecolchem, Inc. v. Southern Calif. Edison Co.*, 227 F.3d 1361 (Fed. Cir. 2000), (citing *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988)).

In this rejection, the applied references fail to disclose or suggest all of the features of the claimed invention. Moreover, without regard to expectation of success or destroying the intended operation of Shakib, the Examiner proposes first modifying Shakib to include relational database teachings of Yoshiyama, and then subsequently modifying Shakib to be a non-relational database. Furthermore, the Examiner fails to provide credible reasons that would have prompted one of ordinary skill in the art to make the proposed modifications, and instead recites snippets of text from the modifying references that have no apparent relation to

the proposed modifications. In light of these infirmities, Applicants submit that the Examiner is using information gleaned only from Applicants' disclosure in formulating the rejection, which amounts to the use of impermissible hindsight.

For all of the above-discussed reasons, Applicants submit that the applied references fail to render obvious the invention recited in independent claims 1, 7, 18, and 25. Moreover, Applicants submit that claims 3-6, 10-13, 16, 17, and 20-21 depend from allowable independent claims, and are allowable based upon the allowability of the respective independent claims.

Accordingly Applicants respectfully request that the §103(a) rejection of claims 1, 3-7, 10-13, 16-18, and 20-25 be withdrawn.

#### **New Claims**

New claims 30-33 are added by this amendment. These claims depend from allowable independent claims 1, 7, 18, and 25, respectively, and are allowable at least for the reasons discussed above with respect to the independent claims. Moreover, the applied art fails to disclose or teach the features recited in these claims.



**CONCLUSION**

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 09-0457.

Respectfully submitted,  
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